AMENDMENTS TO THE CLAIMS

Claims 1-10 **(Cancelled)**

11. **(New)** A process for the preparation of a polyolefin having multimodal molecular weight distribution comprising the steps of:

(a) contacting an olefin monomer and a first co-reactant selected from the group consisting of hydrogen and an olefin co-monomer in a first continuously stirred reactor under first polymerization conditions to produce a first product comprising a first polyolefin having a first molecular weight distribution;

(b) contacting an olefin monomer and a second co-reactant which is different from said first co-reactant selected from a group consisting of hydrogen and an olefin co-monomer with a second catalyst system in a second continuously stirred reactor under second polymerization conditions to produce a second product comprising a second polyolefin having a second molecular weight distribution that is different from said first molecular weight distribution;

(c) wherein each of said first and second catalysts in said first and second reactors includes a metallocene catalyst component comprising a bridged bis-tetrahydroindenyl compound of the general formula:

$$(IndH_4)_2\ R"MQ_2$$

wherein each $IndH_4$ is the same or different and is a tetrahydroindenyl or substituted tetrahydroindenyl group, R" is a bridge between the $IndH_4$ group which comprises a C_1-C_4 alkylene radical, a dialkyl germanium or silicon or siloxane, or an alkyl phosphine or amine

radical, which bridge is substituted or unsubstituted, M is a Group IV metal or vanadium, and each Q is independently a hydrocarbyl group having 1 to 20 carbon atoms or a halogen, and

an activating agent which activates the metallocene catalyst component; and

(d) mixing together said polyolefins to form a polyolefin blend having multimodal molecular weight distribution.

12. **(New)** The process of claim 11 wherein in each of said first and second catalyst components, at least one of said tetrahydroindenyl group is unsubstituted.

13. **(New)** The process of claim 12 wherein in each of said first and second catalyst components, both of the tetrahydroindenyl groups are unsubstituted.

14. **(New)** The process of claim 13 wherein M in each of said first and second catalyst is selected from the group consisting of zirconium, hafnium and titanium.

15. **(New)** The process of claim 14 wherein M is zirconium.

16. **(New)** The process of claim 14 wherein Q in each of said first and second catalysts is chlorine or a methyl group.

17. **(New)** The process of claim 14 wherein at least one of said first and second catalysts is ethylene-bis(4,5,6,7-tetrahydroindenyl-1-indenyl) zirconium dichloride.

18. **(New)** The process of claim 11 wherein said second catalyst is different from said first catalyst and wherein said first and second catalysts are supported on a single support to form a dual site catalyst which is employed in each of said first and second reactors.

19. **(New)** The process of claim 11 wherein each of said reaction zones is operated at a temperature within the range of 60-90 °C.

20. **(New)** The process of claim 19 wherein each of said reactors is operated at a pressure within the range of 5-10 bars.

21. **(New)** The process of claim 11 wherein said first and second reactors are connected and in series and the first polyolefin product is supplied from said first reactor to said second reactor.

22. **(New)** The process of claim 21 wherein said olefin monomer in said second reactor is contacted in the presence of said second catalyst system with said second co-reactant to produce a mixture of said first and second polyolefins in said second reactor.

23. **(New)** The process of claim 21 wherein the metallocene catalyst components employed in said first and second reactors are the same.

24. **(New)** The process of claim 21 wherein the first co-reactant is hydrogen and the second co-reactant is an olefin comonomer.

25. **(New)** The process of claim 24 wherein said second co-reactant is a comonomer selected from the group consisting of butene and hexene.

26. **(New)** The process of claim 25 wherein said olefin monomer supplied to each of said first and second reactors is ethylene.

27. **(New)** The process of claim 21 wherein said first co-reactant is an olefin comonomer and the second co-reactant is hydrogen.

28. **(New)** The process of claim 11 wherein the first polyolefin recovered from said first reactor and the second polyolefin recovered from said second reactor are mixed together by physical blending.

29. **(New)** The process of claim 28 wherein said physical blending is carried out by co-extruding said first and second polyolefins.

30. **(New)** The process of claim 28 wherein the olefin monomer in said first and second reactors comprises ethylene.